

OBITUARY

C. A. GARDNER, M.B.E.

Mr. Charles Austin Gardner, recently retired Government Botanist, and one of the foundation members of this Club in 1924, died at the Home of Peace, Subiaco, on February 24, 1970. He was stricken with Parkinson's Disease in November the previous year and entered Sir Charles Gairdner Hospital. Prior to that he was still at work on various botanical projects, though his friends had noted he was failing some two years previously.

Mr. Gardner was born in Lancaster, England, on January 6, 1896. He had distinguished forebears. A family tree in the possession of his sister, Miss Louise Gardner, shows a branch descended from the de Clyfton family in William 11's time. One member, John Southworth (1592-1654), one of the English Catholic martyrs, afterwards beatified, was executed at Tyburn. On his mother's side he was related to the well-known naturalist, Charles Waterton (1782-1865), of Walton Hall, near Wakefield, Yorkshire. Waterton, author of *Wanderings in South America* (1825), has been described as "one of England's great eccentrics" and "also one of her finest naturalists," and is credited with founding Britain's first nature reserve (see *Animals*, 2 (17), October 1963: 458; *Country-Side*, 20 (10), Summer number 1967: 433).

Charles Gardner's father, George William Gardner, sold the family farming property near the Crook of Lune (the River Lune flowed through it) when planning to emigrate to Australia and farm there. The family sailed from Liverpool in the White Star liner *Medic* on October 21, 1909, and arrived at Albany, via Cape Town, on November 27. They spent some months in Perth whilst the father travelled around the country inspecting land propositions. Eventually they settled on virgin country at Yorkrakine, 11 miles north of Bungulla on the eastern railway. There was sandplain on the property with a wealth of wildflowers. It can be imagined how stimulating the environment would have been to the youthful Charles. For already in England he had made botany his hobby and had started a herbarium at the age of 10 or 12 years.

His initiation into formal botany began after he joined the staff of the National Bank as a youth. He was encouraged in his botanical pursuits by Mrs. E. H. Pelloe, an influential amateur botanist of the day and in whose valuable *Wild Flowers of Western Australia*, published in 1921, the name "Yorkrakine" appears frequently, attesting to young Gardner's help with locality records for her book. He also supplied one illustration, supplementing hers, the precursor of a notable feature of his own published work to be. His interest in art was developed by studies under the well-known Perth art master, J. W. Linton, and he painted with C. S. Bardwell-Clarke. At the Perth Royal Show of 1916 he won a prize with a flower painting.

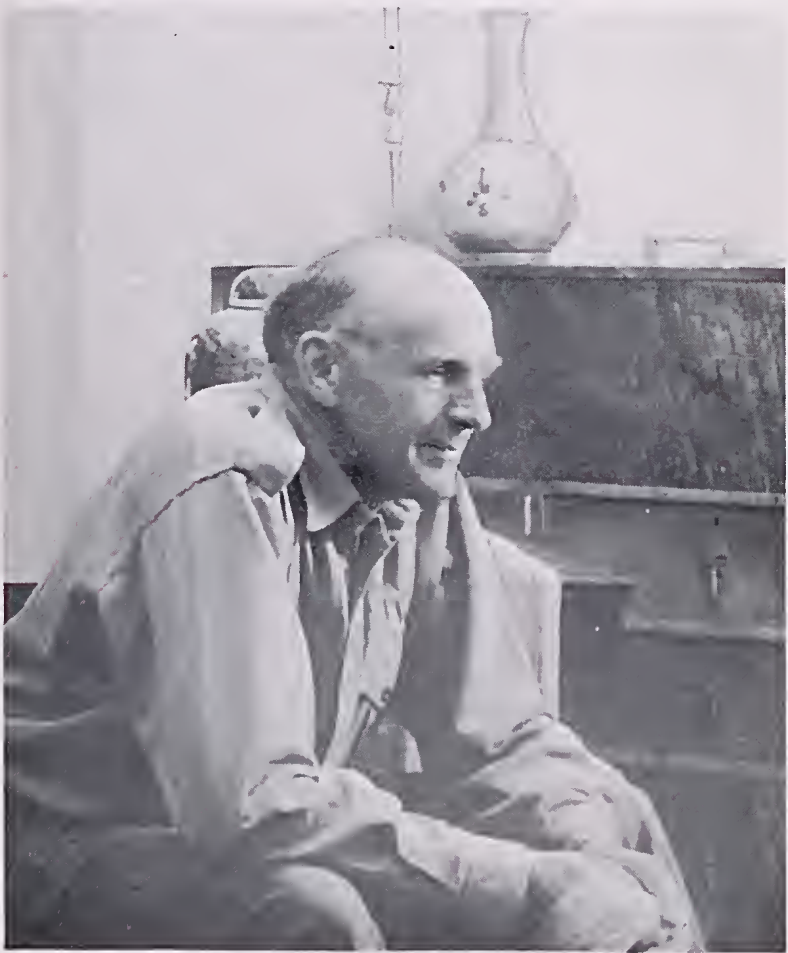
The manner in which Gardner entered professional botany may be described in the words of Professor D. A. Herbert, of Brisbane, then Economic Botanist and Plant Pathologist with the Department of Agriculture, Perth. In a recent letter Professor Herbert wrote:

"In 1919 I used to visit the Museum library regularly in the weekends, and before long noticed that another regular visitor, a shy young man in a light grey suit, was engaged in the terrific task of transcribing the descriptions* of the Western Australian plants in Bentham's *Flora Australiensis*, and had already finished either two or three volumes. He was Charles Austin Gardner. He had already built up a sizeable collection of herbarium specimens, and told me that Mrs. Emily Pelloe had given him a great deal of help in their preliminary identification. Mrs. Pelloe had from the time she planned her book frequently visited me at the Government Herbarium (then attached to the Government Analyst's department in Wellington Street) and I offered Mr. Gardner the use of our collections and the small but comprehensive library. He was obvi-

* actually copying the keys, vide R. D. Royce.

ously a young man with a great botanical future ahead of him, and when he told me he wished to take this type of work up for his career, I tried to get him appointed to the staff. At that time I was doing the work of Economic Botanist and Plant Pathologist single-handed, and though Plant Pathology was certainly not in his line, his help in the identification of forestry specimens that were pouring in from Mr. Lane-Poole's department would have been of great value. This was, however, not approved and when I told Mr. Lane-Poole he very promptly had him appointed as Forests Department Collector."

Gardner joined the Forests Department in 1920, under its distinguished Conservator, C. E. Lane-Poole. Early the following year an event took place which had a momentous influence on his career and thrust him into botanical notice. An expedition to the Northern Kimberley was being organized, led by Surveyor W. R. Easton. The Surveyor-General (H. S. King) suggested the desirability of a botanist being included in the party and the Forests Department was approached. Gardner's services were made available and he was in the field with the expedition from



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April to October, 1921. Though fire at the camp at the end of the first month destroyed over 100 sets of specimens he was able to prepare a notable report, his first major paper, issued in 1923 as Forests Bulletin No. 32. It carried the unpretentious title of "Botanical Notes, Kimberley Division of Western Australia," but is a substantial treatise of 105 pages, describing 20 new species, a number of new varieties and adding a hitherto unrecorded family to the flora of Western Australia. Useful ecological data, including the extent of deciduousness in the northern flora, with accounts of the various plant formations, were illustrated by photographs and nine of his characteristic black-and-white drawings.

In 1924 he transferred to the Department of Agriculture, commencing duty on July 1 as Assistant to the then Economic Botanist and Plant Pathologist, W. M. Carne. In July, 1926 he became the Assistant Botanist and Plant Pathologist, and when Mr. Carne resigned in 1928 to join the C.S.I.R., the post was divided. Plant Pathology was taken over by Mr. H. A. Pittman, and, on January 1, 1929, Gardner was appointed Government Botanist and Curator of the W.A. Herbarium. He held this post until he reached the statutory retiring age in 1960. Incidentally, though the title of "Government Botanist" was popularly applied to several persons from James Drummond onwards, there were really only two who were officially designated as such. The first was Dr. Alexander Morrison, who was Government Botanist in the late 90's and the early years of the present century. But he was a medical man engaged in private practice, so must have held the appointment in an honorary capacity. Gardner was the only person who held the title as a full-time professional officer in the State service. The other chief botanists were officially titled Economic Botanists and Plant Pathologists, or, in the case of Mr. Gardner's successor, Mr. R. D. Royce, Officer-in-Charge of the Botanical Branch. One must regret that the title of Government Botanist has not been retained.

During his 40 years service as a botanist with the Government, Gardner travelled widely over the State, collecting and recording. He continued this work privately after retirement. He was particularly keen on tracing the routes of former botanists, especially James Drummond, as indicated in his article, "The Botany of the Hill River District" (*W. Aust. Nat.*, 1(1), 1947; 1-6). Between 1923 and 1962 his bibliography included some 320 items, most appearing in the first decade*. He described eight new genera of plants and some 200 new species. One of the most striking of these perhaps, was *Pilostyles hamiltonii*, described in 1948, the first member of the Rafflesiaceae (hitherto known only from the New and Old World tropics) to be recorded from Australia. It is still only known from South-Western Australia where it is a parasite on the genus *Daviesia* a member of the Papilionaceae (see G. G. Smith, *W. Aust. Nat.*, 3 (2), 1951: 21-24). Professor Herbert comments: "His earlier plant descriptions in Latin were dependent on the help of a Roman Catholic priest friend, and were in a somewhat better form than the formalized and skeletal language of most systematists." This friend was Father William Gimenez, of the Benedictine Monastery at New Norcia.

Intimately linked with his taxonomic work was his interest in plant distribution, which stemmed from his first Kimberley expedition. He made this the subject of his presidential address to the Royal Society of Western Australia in 1942, and in his article on the vegetation of Western Australia in the collective work, *Biogeography and Ecology in Australia* (The Hague, 1959). A provocative paper, "The Fire Factor in Relation to the Vegetation of Western Australia", *W. Aust. Nat.*, 5 (7), 1957: 166-173, provided evidence that bushfires were a natural phenomenon in the sand-plain and mallee formations, and probably the jarrah forest, and that the plant elements in them were fire tolerant, even pyrophilous.

His ultimate publishing objective was a *Flora* of Western Australia. To that end he compiled a systematic census of the local plants, *Enume-*

* A complete list of these publications is held at the Western Australian Herbarium, the State Library, University Botany Department, and the Royal Botanic Gardens, Melbourne.

ratio Plantarum Australiae Occidentalis, published by the Government Printer in three parts in 1930-31. However the definitive *Flora* was slow in getting under way. The first volume, on the grasses, appeared belatedly in 1952, and though much ground-work for the others was laid, there were no more volumes in this series. However a joint work with Dr. H. W. Bennetts on the poison plants appeared in 1956, and prior to his death he was working on books on the genera *Bauksia* and *Eucalyptus*. Earlier, in the *Australian Forestry Journal* between 1923 and 1924, he published a series of articles on the forest formations of Western Australia, and one of his finishing bulletins for the Forests Department (No. 34, 1924), in collaboration with the then Conservator, S. L. Kessell, was a key to the eucalypts of Western Australia. Much later, a series of articles on 110 species of *Eucalyptus*, published in the *Journal of Agriculture* between 1952 and 1966, under the title of "Trees of Western Australia," and lavishly illustrated by his incomparable drawings, were reprinted as departmental bulletins. As a title-page index has been issued for them they may be bound by their owners as a very attractive and useful reference book.

In the field of more popular writing he contributed between 1929 and 1937 a lengthy series of articles on trees and wildflowers to *Our Rural Magazine*, a publication of the Education Department. Between 1932 and 1935 the *Western Mail*, a weekly published by West Australian Newspapers Ltd., and now unfortunately defunct, issued a series of 130 loose leaf supplements of Western Australian wildflowers in colour, from paintings done by Edgar Dell, with a brief text by Charles Gardner. These were published by the firm in book form, *Flowers of Western Australia*, in 1935. Later the same year this was superseded by the more extensive *West Australian Wildflowers*, text by Gardner and the colour plates by Dell, which went through eight editions until 1951. In 1959 this book was replaced by West Australian Newspapers by the more elaborate *Wildflowers of Western Australia*, with an expanded text by Gardner, and Dell's beautiful plates supplemented by colour photographs taken by Gardner. When colour photography came in Gardner took it up with enthusiasm and thoroughness. With appropriate backgrounds he photographed an extensive series of native plants and this great collection was used not only for publication but to illustrate public lectures.

Apart from natural history bodies he took up lecturing to other types of organisations on an increasing scale. These included the National Trust, the Tree Society, Wildflower Growers' Society, Rotary Clubs, Shire Councils, University colleges and other groups. Whilst straight botanical subjects were the main theme he emphasised the need for more effective conservation of the State's flora. In fact he had been crusading with zeal in the cause of conservation since his earliest days as a professional botanist.

He was unceasing in his advocacy of large reserves in the various major habitats of the State. Contrary to the views of the majority of contemporary naturalists he had little sympathy, therefore, for the creation of small reserves and very little for the preservation of road verges, reckoning that these were not viable and pre-occupation with them distracted energies from the main issue—the campaign for big reservations. In this his persistency was successful, though subsequent unsympathetic Governments reduced the area of some of them. Mainly through his own efforts he was instrumental in persuading the Government to proclaim the following five extensive flora reserves, (1) at the lower Murchison River; (2) the Hill River Reserve (Mt. Lesueur); (3) the reserve south of Southern Cross (Lake Cronin); (4) Gardner River to the Hamersley River (including the Barrens); and (5) Cape Arid and Israelite Bay. After his retirement he was more forceful in his public comments on conservation issues and criticism on the misuse of lands in the pastoral areas through over-grazing.

He disapproved of the proposal to have the Botanic Garden in King's Park, supporting the opinions of the British botanists, Sir Edward Salisbury and Sir Arthur Hill, that it should be located in Bold Park.

Apart from his routine official duties in the State service, he went to England in 1937 as the first Australian botanical liaison officer,

stationed at the Kew Gardens Herbarium. Between 1924 and 1962 he delivered courses of lectures in plant geography and systematic botany in the Faculty of Agriculture of the University of Western Australia. In the rural programmes of the Australian Broadcasting Commission he gave numerous radio talks on botanical subjects. With the growth in popularity of organized wildflower tours in the State, in recent years, he was engaged two or three times each year as a botanical guide and lecturer by the Midland Railway Company of W.A., and latterly by the W.A. Government Railways, on wildflower tours in the Geraldton and Murchison areas. He was a member of the National Parks Board and, after Dr. J. S. Beard became Director of King's Park, was, for a period, Honorary Consulting Botanist to the King's Park Board.

He played an active role in local natural history and scientific societies. He was for a long period on the council of the Royal Society of Western Australia, serving as president in 1941-42. In 1924 he was one of the 19 foundation members of the Western Australian Naturalists' Club, and in 1926 became its second Honorary Secretary. He revised the scheme of Club circulars in a format which was standard for several years, and in 1925 was active in staging the Club's participation in the annual Wildflower Exhibition and which was a feature of Perth's annual events. Afterwards the Club held its own exhibitions (see *W. Aust. Nat.*, 9 (6), 1964: 129, 133).

Gardner showed little interest in international or interstate scientific congresses, such as A.N.Z.A.A.S. He declined an invitation to become president of the botany section of the Association for the Auckland meeting in January 1937 ("regretting that, owing to the time which such a visit would occupy at the busy season of the year, he was obliged to refuse"). He did, however, participate in the second Pan-Indian Ocean Scientific Congress held in Perth in 1954. This aloofness from such meetings tended to botanists in other states coming to regard him as somewhat of a recluse. However within the State he was far otherwise. He generously assisted workers in other disciplines in plant identifications and in ecological discussions. These colleagues were amazed at his astonishing faculty for spot identifications of local plants without having recourse to keys. Even botanists were impressed by these powers and they recount anecdotes of Gardner being able to recognise exotic plants on sight even though he had never seen them previously but had remembered reading diagnoses of them. Such phenomenal knowledge of plants may explain, perhaps, one criticised trait of his. His ambition to encompass the whole field of local botany, despite the increasingly obvious fact that it was too vast for one man to do so alone, betrayed a tendency to "freeze out" other potential workers. Those who persisted found they had to work alone, with no encouragement from him. One result of this attitude was that a local school of amateur workers, such as was active in the days of Dr. Morrison and leading to the formation of the Mueller Botanic Society of Western Australia, ceased to flourish in his time. Nevertheless he played a notable role in the primary documentation of the State's flora as his impressive total of new species testifies. This is essential preliminary work before the new modern taxonomy can take over.

His contemporaries have recognised his worth. In 1949 he was awarded the Gold Medal of the Royal Society of Western Australia; in 1961 he received the W. B. Clarke Medal of the Royal Society of New South Wales, and in 1969 the Australian Natural History Medallion. He was elected an Honorary Member of the Royal Society of W.A. and of the W.A. Naturalists' Club. In the Queen's Birthday Honours list of June 1965 he was awarded an M.B.E.

Among other biographies of Mr. Gardner which have been published are the following: *Victorian Naturalist*, 87 (6), June 1970: 173-175, and *Journal of the Royal Society of W.A.*, 53, 1970. Portraits have appeared in the *Journal of the Royal Society of W.A.*, 34, 1950: v, and the *Western Australian Naturalist*, 9 (6), 1964: 127.

—D.L.S.